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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Akira Usami

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KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

12/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,664	Applicant(s) USAMI ET AL.	
	Examiner Deborah Yee	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/14/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 18-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 9 and 18 to 27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 2002-12940 ("JP-940") alone or in view of US Patent 3,733,195("US-195") or US Patent 4,407,681 ("US-681") for the reasons set forth in the previous office action dated June 9, 2008.

Response to Arguments

3. Applicant's arguments filed October 14, 2008 have been fully considered but they are not persuasive.

4. It was argued that when using steel as crude oil tank, JP-940 steel requires primer coating in addition to coating for preventing rusting whereas present invention steel is used in naked state. Applicant further submitted that there is no disclosure or suggestion concerning the present invention concept of lowering local corrosion rate by the addition of Mo in Fe-Cu-Mo steel as shown in Figure 1 of the instant specification. JP-940 also does not disclose or suggest adding W to lower local corrosion rate with the addition of Mo- in Fe-Cu-Mo steel; and contains Cr at more than 0.2 % whereas Cr in present invention is avoided and limited to less than 0.1%.

5. Contrary to Applicant's argument, it is the Examiner's position that present invention requires inventive steel when used as a crude oil tank to have one or more layers of protective coating to prevent corrosion, see item (17) on page 26 of instant specification. Hence claimed steel would be similar to JP-940.

6. In addition, JP-940 steel has a composition with constituents whose wt% ranges overlap those recited by the claims; and such overlap establishes a prima facie case of obviousness. More specifically, prior art steel 32 in table 2 on page 7 meets the composition recited by claim 1 except for 0.22% Mo which is slightly higher than the claimed Mo range of 0.01 to 0.2%. Since Applicant has not demonstrated criticality of the Mo range (e.g. by comparative test data), then a composition with 0.2% Mo verses a composition with slightly more Mo (say 0.22%) would depict a mere difference in the proportion of element without any attendant unexpected results which would not patentably distinguish claims over prior art. Applicant test data shown in Figure 1 is ineffective because it does not show a patentable distinction between 0.2% Mo and 0.22% Mo

7. It was pointed out that JP-940 steel does not contain W but such element is optional and not required by Applicant's claims. In addition, W is a common additive for analogous corrosion resistant crude oil tank steel to improve mechanical properties, as evident by US-681, lines 61 to 68 in column 3 and lines 53 to 65 in column 4; and hence would be a matter of choice well within the skill of the artisan to incorporate.

8. Also JP-940 teaches Cr as optional and therefore can be omitted and meet Cr < 0.1% recited by Applicant's dependent claim 4.

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9. In regard to Applicant's arguments to US-195 and US-681, they are merely secondary teachings to shown that Sb, Sn, Pb, As, Bi, Mg, Ca, Y, La and/or Ce in small amounts are conventionally added to analogous steel for crude oil tank fabrication to further enhance corrosion resistant properties and therefore would be well within the skill of the artisan to incorporate to JP-940 steel.

10. To distinguish claims over prior art, it is recommended to amend claim 1 to require the presence of 0.01 to 0.1% Mo. Applicant's more narrowly claimed Mo range is critical to produce new and unexpected results with regard to local corrosion resistance as shown in figure 1 which is not taught or suggested by the art of record. Applicant has discovered that when 0.01 to 0.1% Mo is added to steel containing not less than 0.1% Cu, the rate of progress of local corrosion is remarkably decrease to not more than 1/5 that of ordinary steel and when more than 0.1% Mo is added to a steel containing not less than 0.1% Cu, the effect of Mo on suppressing the rate of progress of local corrosion decreases.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/
Primary Examiner, Art Unit 1793

/DY/